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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,126	04/06/2001	Rainer Eckert	P01-0073	4270
29177	7590	07/13/2004		EXAMINER
BELL, BOYD & LLOYD, LLC				CHO, UN C
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CHICAGO, IL 60690-1135			ART UNIT	PAPER NUMBER
			2682	11

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/807,126	ECKERT, RAINER
	<b>Examiner</b>	<b>Art Unit</b>
	Un C Cho	2682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 03 May 2004.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 11-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 11-19 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 11 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Portin, (US 5,794,159).

Regarding claim 11, Portin teaches multi-mode radiotelephone having a first transmission antenna (Portin, Fig. 3, 12a or 12b) for transmitting signals within the transmission frequency band of a first frequency range (Portin, Col. 2, lines 18 – 21), a second transmission antenna (Portin, Fig. 3, 12a or 12b) for transmitting signals within the transmission frequency band of a second frequency range (Portin, Col. 2, lines 21 – 24), a first reception antenna (Portin, Fig. 3, 12a or 12b) for receiving signals within the receiving frequency band of the first frequency range (Portin, Col. 2, lines 13 – 15) and a second reception antenna (Portin, Fig. 3, 12a or 12b) for receiving signals within the receiving frequency band of the second frequency range (Portin, Col. 2, lines 15 – 18).

Regarding claim 15, the claim is interpreted and rejected for the same reason as set forth in claim 11.

3. Claims 18 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Kiiski et al (US 6,430,421).

Regarding claim 18, Kiiski teaches an antenna array comprising at least one transmission antenna (Kiiski, Fig. 8b) transmitting a plurality of frequency bands (Kiiski, Col. 8, lines 13 – 16) and at least one reception antenna (Kiiski, Fig. 8a) receiving a plurality of frequency bands (Kiiski, Col. 8, lines 6 – 9).

Furthermore, Kiiski teaches an independent, transmitting branch (Kiiski, Fig. 8b) and receiving branch (Kiiski, Fig. 8a) having its corresponding array of antennas tuned to transmit and receive the same frequency assigned to the transmit branch and the receiving branch. Therefore, it clearly shows that this antenna array operates without the use of antenna switches (Kiiski, Col. 3, lines 36 – 38, 59 – 65).

Regarding claim 19, Kiiski teaches that the plurality of frequency bands comprise of GSM and TDMA (Kiiski, Col. 5, lines 9 – 15).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 12, 13, 14, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Portin in view of Miller et al. (US 6,396,365).

Regarding claim 12, Portin teaches the limitations of claim 11. However, Portin fails to teach that the first and the second transmission antenna are identical. In contrast, Miller teaches a pair of identical antennas (Miller, Fig. 1, 101 and 102) for transmission (Miller, Col. 5, lines 1 – 8 and 65 – 66). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Miller to Portin to provide reception and transmission of signals in different frequency ranges and advantageously allow receivers to be switched between the different frequencies without any substantial loss or degradation of signal.

Regarding claim 13, Portin as modified by Miller teaches a pair of identical antennas (Miller, Fig. 1, 101 and 102) for reception (Miller, Col. 5, lines 1 – 8 and 65 – 66).

Regarding claim 14, Portin as modified by Miller teaches multi-mode radiotelephone having a first transmission antenna (Portin, Fig. 3, 12a or 12b) for transmitting signals within the transmission frequency band of a first frequency range (Portin, Col. 2, lines 18 – 21), a second transmission antenna (Portin, Fig. 3, 12a or 12b) for transmitting signals within the transmission frequency band of a second frequency range (Portin, Col. 2, lines 21 – 24), a first reception antenna (Portin, Fig. 3, 12a or 12b) for receiving signals within the receiving frequency band of the first frequency range (Portin, Col. 2, lines 13 – 15) and a second

reception antenna (Portin, Fig. 3, 12a or 12b) for receiving signals within the receiving frequency band of the second frequency range (Portin, Col. 2, lines 15 – 18), first and the second transmission antenna being substantially identical and first and second reception antenna being substantially identical (Miller, Col. 5, lines 1 – 8 and 65 – 66).

Regarding claim 16, the claim is interpreted and rejected for the same reason as set forth in claim 12.

Regarding claim 17, the claim is interpreted and rejected for the same reason as set forth in claim 13.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Un C Cho whose telephone number is (703)305-8725. The examiner can normally be reached on M ~ F 8:00AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (703)308-6739. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Un C Cho      UC      7/1/04  
Examiner  
Art Unit 2682



LEE NGUYEN  
PRIMARY EXAMINER